

СЕТЕВАЯ КАМЕРА

Руководство пользователя

TNB-9000



Сетевая Камера

Руководство пользователя

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❖ Конструкция и характеристики устройства могут быть изменены без предварительного уведомления.

❖ Первоначальный ID администратора - "admin", а пароль следует задать при первом входе в систему.

Для надежной защиты личной информации и предотвращения ущерба от кражи данных меняйте пароль каждые три месяца.

Имейте в виду, что ответственность за безопасность а также за любые проблемы, связанные с ненадлежащим обращением с паролем, несет пользователь.

ВАЖНЫЕ ПРАВИЛА ТЕХНИКИ БЕЗОПАСНОСТИ

1. Прочтите эти правила.
2. Сохраните эти правила.
3. Принимайте во внимание все предупреждения.
4. Следуйте всем правилам.
5. Не используйте изделие вблизи воды.
6. Очищайте загрязненные места на поверхности изделия мягкой, сухой или влажной тряпкой.
(Не используйте моющие средства либо косметические продукты, содержащие спирт, растворители, либо ПАВ, либо смазочные материалы, поскольку они могут привести к деформации или повреждению продукта.)
7. Не загромождайте никакие вентиляционные отверстия. Выполните установку изделия в соответствии с инструкциями изготовителя.
8. Не устанавливайте изделие рядом с источниками тепла, такими, как радиаторы, решетки системы отопления, или другими устройствами, которые генерируют тепло (включая усилители).
9. В целях безопасности не отказывайтесь от использования вилок поляризованного или заземляющего типа. Вилка поляризованного типа имеет два ножевых контакта, один из которых шире другого. Вилка заземляющего типа имеет два контакта и третий заземляющий штырь. Широкое лезвие третьего заземляющего штыря предусмотрено для вашей безопасности.
Если вилка поставляемого вместе с аппаратом шнура питания не подходит для вашей розетки, попросите опытного электрика заменить старую розетку.
10. Не наступайте на шнур питания и не допускайте его заземления, особенно вблизи от штепсельной вилки, в месте подключения к розетке и там, где шнур выходит из изделия.
11. Пользуйтесь только теми приспособлениями/ принадлежностями, которые рекомендованы изготовителем.
12. Используйте устройство только с тележкой, подставкой, штативом, кронштейном и столом, указанными производителем или приобретенными вместе с устройством. Во избежание травм вследствие опрокидывания тележки с устройством соблюдайте осторожность при ее передвижении.
13. Отсоединяйте устройство от сети во время грозы или если оно не используется в течение длительного времени.
14. Все работы, связанные с техническим обслуживанием изделия, должны выполняться квалифицированными специалистами по техническому обслуживанию. Обслуживание изделия требуется выполнять, когда изделие получило какое-либо повреждение, например, был поврежден его шнур питания или вилка шнура питания, внутрь изделия попала жидкость или посторонние предметы, изделие подверглось воздействию дождя или влаги, изделие не работает должным образом, а также после падения изделия.
15. Данное изделие предназначено для питания от утвержденных источников питания с маркировкой "Class 2" или "LPS" с номинальным выходом 12 В перем. тока, не менее 2,2А, либо RoE(55 В пост. тока), не менее 0,55А.
16. Это изделие предназначено для использования с изолированным источником питания.
17. Если при установке изделия прилагать чрезмерные усилия, возможно повреждение с нарушением работы камеры.
Если с силой устанавливать устройство, пользуясь неподходящими инструментами, возможно повреждение устройства.
18. Не допускается установка устройства в местах, где присутствуют или могут появляться химические вещества или пары масла. Поскольку пищевые масла, например, соевое, могут вызвать повреждение или привести к деформации устройства, не устанавливайте его на кухне или вблизи кухонного стола.
В противном случае возможна порча устройства.
19. При установке устройства будьте осторожны, не допускайте попадания химических веществ на его поверхность.
Некоторые химические растворители, например, очистители или клеящие вещества, могут сильно повредить поверхность продукта.
20. Если монтировать/демонтировать устройство не рекомендованным образом, нельзя гарантировать выполнение функций/соответствие характеристик устройства.
Устанавливайте устройство, обратившись к разделу "Установка и подключение" в руководстве пользователя.
21. Установка или эксплуатация устройства в воде может привести к значительному повреждению изделия.



ПРЕДУПРЕЖДЕНИЕ

ВО ИЗБЕЖАНИЕ ПОВРЕЖДЕНИЙ, СЛЕДСТВИЕМ КОТОРЫХ МОЖЕТ БЫТЬ ПОЖАР ИЛИ ПОРАЖЕНИЕ ЭЛЕКТРИЧЕСКИМ ТОКОМ, НЕ ДОПУСКАЙТЕ ПОПАДАНИЯ ДАННОГО ИЗДЕЛИЯ ПОД ДОЖДЬ ИЛИ В УСЛОВИЯ ВЫСОКОЙ ВЛАЖНОСТИ. ЗАПРЕЩАЕТСЯ ВСТАВЛЯТЬ КАКИЕ-ЛИБО МЕТАЛЛИЧЕСКИЕ ПРЕДМЕТЫ В ВЕНТИЛЯЦИОННЫЕ РЕШЕТКИ ИЛИ ДРУГИЕ ОТВЕРСТИЯ В ОБОРУДОВАНИИ.

Не подвергайте устройство воздействию жидкостей. Не следует также ставить на него предметы, наполненные жидкостью, например вазы.

Во избежание травм данное устройство должно быть надежно закреплено на стене/потолке в соответствии с инструкциями по установке.

ВНИМАНИЕ

	ВНИМАНИЕ ОПАСНОСТЬ ПОРАЖЕНИЯ ЭЛЕКТРИЧЕСКИМ ТОКОМ. НЕ ОТКРЫВАТЬ	
ВНИМАНИЕ : ВО ИЗБЕЖАНИЕ ПОРАЖЕНИЯ ЭЛЕКТРИЧЕСКИМ ТОКОМ, НЕ СНИМАЙТЕ ЗАДНЮЮ КРЫШКУ.ВНУТРИ НЕТ ДЕТАЛЕЙ, ОБСЛУЖИВАЕМЫХ ПОЛЬЗОВАТЕЛЕМ. ДЛЯ ТЕХНИЧЕСКОГО ОБСЛУЖИВАНИЯ ОБРАЩАЙТЕСЬ К КВАЛИФИЦИРОВАННОМУ СПЕЦИАЛИСТУ.		

ОПИСАНИЕ ГРАФИЧЕСКИХ ОБОЗНАЧЕНИЙ



Молния со стрелкой в равностороннем треугольнике предупреждает пользователя об "опасном напряжении" в корпусе изделия, которое может представлять риск поражения электрическим током.



Восклицательный знак в равностороннем треугольнике предупреждает пользователя о важных инструкциях по работе и обслуживанию в руководстве, которое прилагается к устройству.

Класс Конструкции I

Устройства КЛАССА I следует подключать к ЭЛЕКТРО розетке с защитным заземлением.

Батарея

Не подвергайте батареи (батарейный блок) чрезмерному нагреванию под воздействием солнечных лучей, огня и т.п.

Батарею невозможно заменить.

Отключение устройства

Отсоедините вилку кабеля питания от устройства в случае повреждения. Обратитесь к местному специалисту по ремонту.

При использовании за пределами США с соединениями одобренными соответствующим органом, может использоваться кодировка HAR.

ВНИМАНИЕ

Существует риск взрыва при замене батарее на батарею несоответствующего типа. Утилизируйте использованные батареи в соответствии с инструкциями.

Настоящие инструкции по обслуживанию предназначены только для квалифицированных специалистов.

Во избежание поражения электрическим током не следует выполнять работы по обслуживанию, описанные в инструкциях по эксплуатации, если вы не обладаете соответствующей квалификацией.

Выходной разъем CVBS устройства предназначен для облегчения монтажа и не рекомендуется использовать его для целей мониторинга.

К источнику входного питания может подсоединяться только одна камера.

Оборудование ITE подключается только к сети питания по Ethernet без маршрутизации на оборудование наружной установки.

Внимательно прочитайте приведенные ниже правила техники безопасности.

- Не ставьте устройство на неровную поверхность.
- Не устанавливайте устройство на поверхность, подверженную прямым солнечным лучам, рядом с нагревательным оборудованием или в очень холодном месте.
- Не устанавливайте это устройство вблизи электропроводящего.
- Не следует ремонтировать устройство самостоятельно.
- Не следует ставить на устройство стаканы с водой.
- Не устанавливайте поблизости источники магнитного поля.
- Не допускайте заграждения вентиляционных отверстий.
- Не ставьте тяжелые предметы на устройство.
- При установке/демонтаже камеры надевайте защитные перчатки. Высокая температура поверхности изделия может вызвать ожог.

Руководство пользователя содержит инструкции по использованию продуктов.

В руководстве используются следующие обозначения.

- Справка : сведения по использованию устройства
 - Примечание : На случай возможных повреждений имущества или вреда здоровью людей в результате несоблюдения инструкций
- ✱ Прочтите это руководство по безопасности перед использованием устройств и сохраните его в безопасном месте.

Качество приобретаемых отдельно сторонних продуктов (например, объективов или принадлежностей) не гарантируется.

В некоторых условиях установки могут возникать помехи радиосвязи.

Если данное устройство и какое-либо устройство радиосвязи создают взаимные электромагнитные помехи, рекомендуется разнести их на достаточное расстояние или изменить направление приемной антенны.

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	6	Рекомендуемая Конфигурация ПК
	6	Рекомендуемые характеристики карт памяти Микро SD/SDHC/SDXC
	6	Рекомендуемые Технические Характеристики NAS
	6	Комплект Поставки
	7	устанавливаемый объектив — дополнительно
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	16	Прямое Подключение Камеры к Модему DSL/кабельному Модему С Поддержкой Протокола DHCP
	17	Использование Device Manager
	17	Автоматический поиск камеры
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РЕКОМЕНДУЕМАЯ КОНФИГУРАЦИЯ ПК

- Процессор : Intel(R) Core(TM) i9-7920X, 2,9 ГГц и выше
 - ОЗУ: 64 ГБ или больше
 - Поддерживаемые ОС : Windows 8.1, 10, Mac OS X 10.12, 10.13, 10.14
 - Рекомендуемый браузер: Google Chrome
 - Поддерживаемые браузеры: MS Explorer11, MS Edge, Mozilla Firefox (только 64-битная Windows), Apple Safari (только Mac OSX)
 - VGA: графическая плата GTX 1080, 11 Гбайт и выше
- ✳ Подробную информацию о поддерживаемых ОС и браузерах см. в приложении.

РЕКОМЕНДУЕМЫЕ ХАРАКТЕРИСТИКИ КАРТ ПАМЯТИ МИКРО SD/SDHC/SDXC

- Рекомендуемая емкость : от 16 до 256 Гбайт (типа MLC)
- Рекомендуемые производители: SanDisk, Transcend
- Тип карты: износостойкая
- Совместимость может отличаться в зависимости от производителя и типа карты.
- Для записи MJPEG на SD-карту рекомендуется установить разрешение записи MJPEG 4K или меньше.
- Согласно характеристикам использования нескольких профилей, TNB-9000 поддерживает три профиля. CH1 поддерживает два профиля, DPTZ CH2 – один профиль. Поэтому при использовании всех трех профилей нельзя настроить и использовать дополнительные параметры записи, например, для SD-карты. В этом случае чтобы продолжить использование функции записи, настройте параметры записи, ничем не отличающиеся от текущих.

РЕКОМЕНДУЕМЫЕ ТЕХНИЧЕСКИЕ ХАРАКТЕРИСТИКИ NAS

- Рекомендуемый объем : Рекомендуемый объем – не менее 200 ГБ.
 - Для этой модели камеры рекомендуется использование NAS со следующими техническими характеристиками производителя.
Рекомендуемые продукты : QNAP NAS, Synology NAS
- !

■ При использовании автоматической записи NAS после перезагрузки камеры соединение N/W может работать медленнее, и в режим автоматической записи звука NAS может функционировать с ошибками при некоторых параметрах используемых внешних устройств N/W.

КОМПЛЕКТ ПОСТАВКИ

Проверьте наличие всех принадлежностей в комплекте поставки камеры.
(У изделий, продаваемых в разных странах, принадлежности могут отличаться.)

Внешний вид	Название элемента	Количество	Описание
	Камера	1	
	Краткое Руководство (необязательно)	1	
	Адаптер HPoE	1	Соединяет источник питания с сетью
	Шнур питания	1	Подключается к HPoE
	6-позиционный клеммный блок	1	Подключение к клеммам ввода/вывода сигналов тревоги
	Клеммник питания	1	Вставлен в разъем электропитания



■ SFP-модули и волоконно-оптические преобразователи продаются отдельно. Выберите и приобретите SFP-модуль для 100/1000 Base-FX и волоконно-оптический преобразователь.

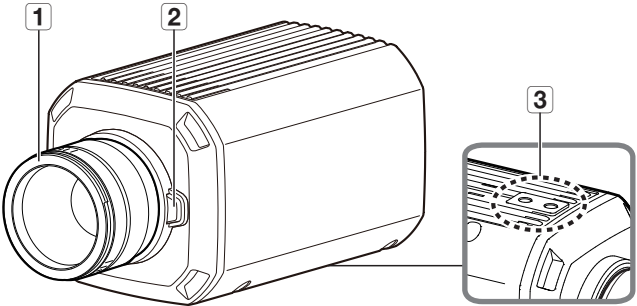
УСТАНАВЛИВАЕМЫЙ ОБЪЕКТИВ — ДОПОЛНИТЕЛЬНО

Внешний вид	Название элемента	Описание	Наименование модели
	устанавливаемый объектив	Дополнительные объективы для камеры	Canon 24 мм, f1.4L, с автоматической регулировкой диафрагмы (EF 24 мм, f/1.4L II, нечеткая маска) Canon 35 мм, f1.4L, с автоматической регулировкой диафрагмы (EF 35 мм, f/1.4L II, нечеткая маска) Canon 50 мм, f1.4, с автоматической регулировкой диафрагмы (EF 50 мм, f/1.4, нечеткая маска) Canon 85 мм, f1.2L, с автоматической регулировкой диафрагмы (EF 85 мм, f/1.2L II, нечеткая маска) Canon 100 мм, f2.0, с автоматической регулировкой диафрагмы (EF 100 мм, f/2, нечеткая маска) Canon 70–200 мм, f2.8L, с автоматической регулировкой диафрагмы, (EF 70–200 мм, f/2.8L, нечеткая маска)

- 
- Изображение продукта зависит от модели объектива.
 - При установке объективов Canon 70–200 мм f2.8L, с автоматической регулировкой диафрагмы, с переменным фокусным расстоянием (EF 70–200 мм, f/2.8L, нечеткая маска) использование корпуса обязательно.

ОБЩИЙ ОБЗОР

Передняя сторона

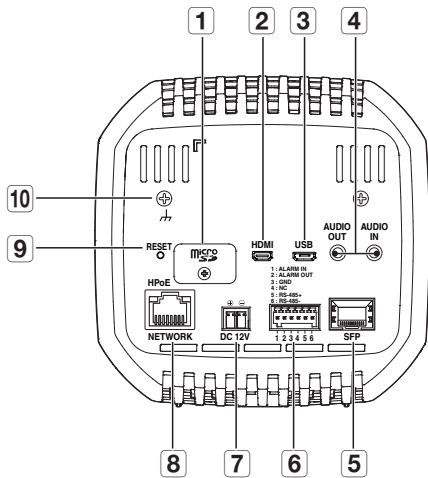


Элемент	Описание
1 Устанавливаемый объектив	Этот объектив устанавливается на камеру. Продается отдельно.
2 Кнопка отсоединения объектива	Используется для отсоединения установленного объектива.
3 Отверстие под винт для установки	Предназначено для крепления камеры к корпусу. ■ Размер винта : Это – спецификация на винты, которые используются для прикрепления камеры к опоре. 1/4" - 20 UNC Длина: 4,5 ± 0,2 мм (стандарт ISO) или 0,197" (стандарт ASA)



- 
- Корпус не входит в комплект. Подробную информацию об использовании корпуса см. в документации по продукту.

Задняя сторона



Элемент	Описание	
1 Отсек для карты памяти Микро SD	Отсек для карты памяти Микро SD.	
2 Разъем micro HDMI	Подключите к монитору, используя кабель HDMI, чтобы просматривать трансляцию с камеры.	
3 Порт Micro-USB	Порт для подключения адаптера Wi-Fi. Можно просмотреть видео об установке через приложения, установленные на смартфоне. См. "Подключение к адаптеру Wi-Fi" на стр. 11. ■ Аппаратный ключ Wi-Fi и переходник OTG продаются отдельно.	
4 Разъем аудиовыхода	AUDIO OUT	Используется для подключения к динамикам.
	AUDIO IN	Используется для подключения к микрофону.
5 Слот SFP-модуля	Разъем, который обеспечивает волоконно-оптическое соединение через SFP-модуль (тип LC). (100/1000Base-FX)	
6 Порт ввода-вывода сигналов тревоги	ALARM IN	Используется для подключения сенсора входного сигнала тревоги или наружного сенсора день/ночь.
	ALARM OUT	Используется для передачи выходных сигналы тревоги.
	GND	Используется для грунтового заземления.
	RS-485+	Линия передачи данных RS-485
	RS-485-	Линия передачи данных RS-485

Элемент	Описание
7 Порт питания	Используется для подключения кабеля питания.
8 Порт подключения HPoE	Эта клемма соединяет питание и сеть через адаптер HPoE или подключается к сети через интернет-кабель.
9 Кнопка сброса	Восстановление заводских настроек по умолчанию для всех параметров камеры. Для перезагрузки системы нажмите и удерживайте в течение 5 секунд. ■ Если сбросить настройки камеры, то сетевые настройки позволят активировать DHCP. Если в сети нет DHCP-сервера, то перед первым подключением к сети необходимо запустить программу Device Manager, чтобы изменить основные сетевые параметры, такие как IP-адрес, маска подсети, шлюз и т. д.
10 Молниезащитный заземляющий порт	Используется для защиты камеры и безопасного отвода наружу тока молнии.

■ Порт RS-485 поддерживает прямое подключение с драйвером поворота/наклона, внешние подключения контроллера RS-485 не поддерживаются.

УСТАНОВКА ОБЪЕКТИВА

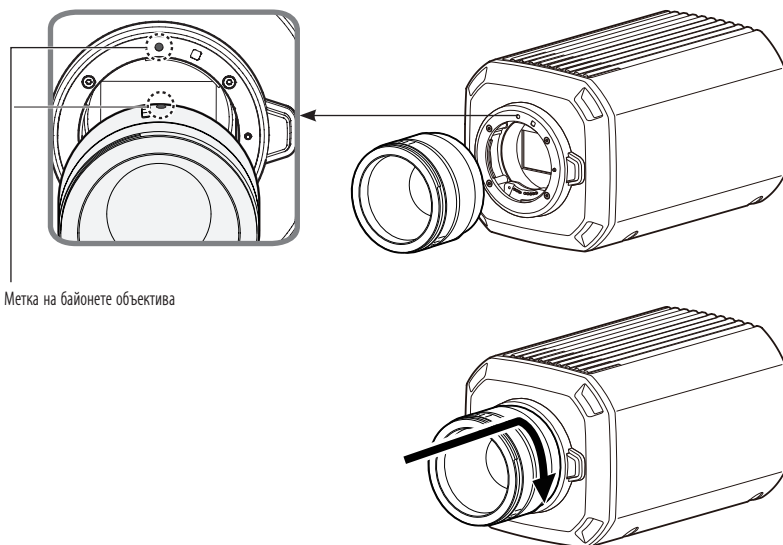
Сначала отсоедините кабель питания.



- Устанавливаемые объективы приобретаются отдельно. Список совместимых объективов см. на стр. 7.
- При установке и отсоединении объектива электропитание камеры должно быть выключено.

Установка объектива на камеру

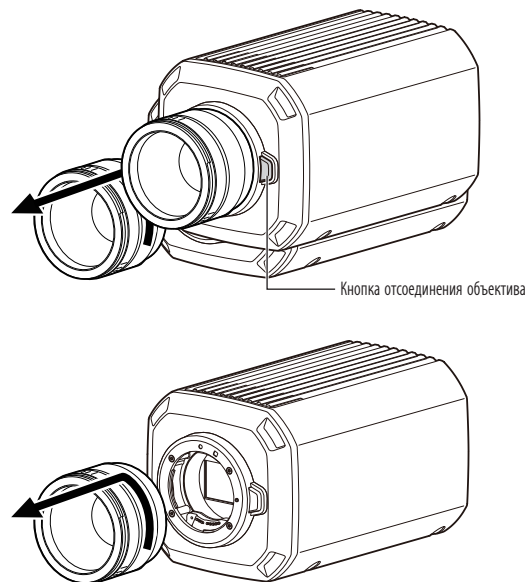
Вставьте объектив, выровняв метку на байонете, и поверните его по часовой стрелке для установки.



- Цвет метки на байонете зависит от модели объектива.
- Дополнительную информацию об устанавливаемом объективе см. в соответствующем руководстве пользователя.

Отсоединение объектива

Нажав и удерживая кнопку для отсоединения объектива на камере, поверните объектив против часовой стрелки для его снятия.

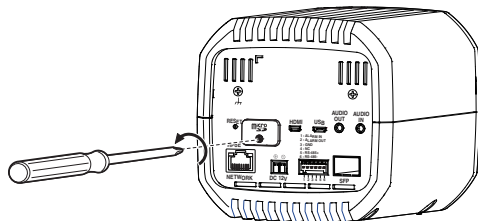


УСТАНОВКА/ИЗВЛЕЧЕНИЕ КАРТЫ ПАМЯТИ МИКРО SD

- ❗ Перед установкой карты Микро SD отключите кабель питания от камеры.
- Правильно расположенная карта памяти Микро SD вставляется без усилия. Принудительная установка карты памяти Микро SD не той стороной может привести к ее повреждению.

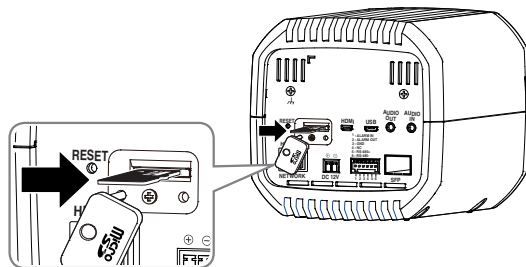
Извлечение заглушки разъема карты памяти

С помощью отвертки вывинтите винты, которые крепят пыленепроницаемую заглушку к разъему, и извлеките ее, чтобы вставить карту памяти.



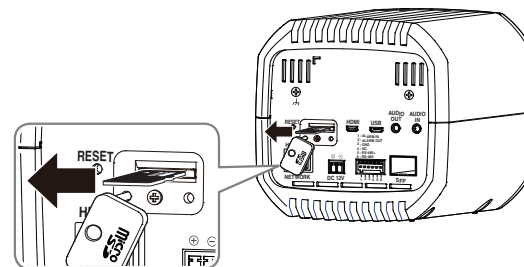
Установка карты памяти Микро SD

Вставьте карту памяти Микро SD в направлении стрелки, указанной на рисунке.



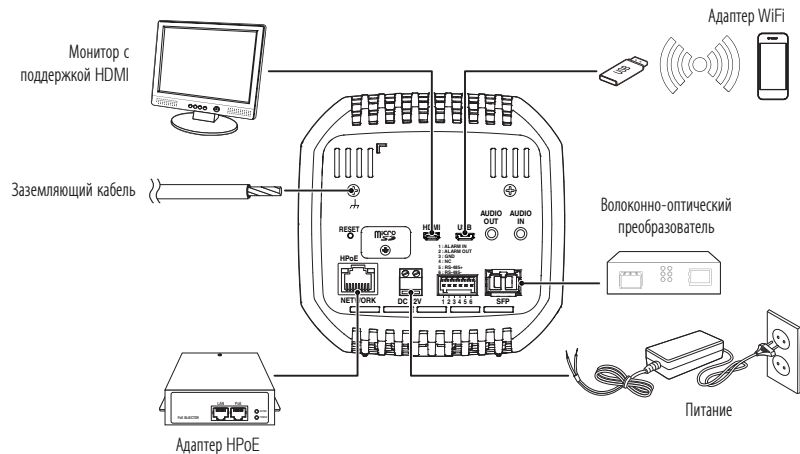
Извлечение карты памяти Микро SD

Мягко нажмите на выступающий конец карточки как показано на диаграмме, чтобы извлечь карточку из гнезда.



- ❗ При слишком сильном нажатии на карту памяти Микро SD она может "выстрелить" из разъема при отпускании пальца.
- Перед извлечением карты памяти Микро SD, в разделе <Установка (⚙️)>-<Событие>-<Накопитель>, установите устройство в положение <Выкл.> и нажмите кнопку [Применить] и выключите камеру.
- Если Вы выключите камеру или извлечете из продукта карту памяти Микро SD, содержащую данные, то эти данные могут быть потеряны или повреждены.

ПОДКЛЮЧЕНИЕ К ДРУГОМУ УСТРОЙСТВУ



- Подключите маршрутизатор с поддержкой HPOE.
- Выходной разъем Микро USB устройства предназначен для облегчения монтажа и не рекомендуется использовать его для целей мониторинга.

Подключение Wi-Fi

Настройка камеры

1. Подключите переходник OTG (5-контактный) и аппаратный ключ Wi-Fi к соединителю micro USB.

Настройка смартфона

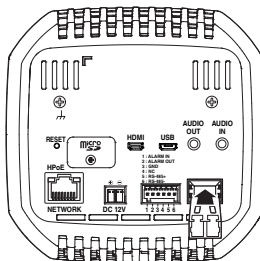
1. Установите приложение для установки Wisenet.
2. После включения Wi-Fi выберите SSID камеры.
3. Запустите приложение для установки Wisenet.
4. После входа в камеру будет подключено видео.
 - Во время первоначального подключения без входа в систему видео будет воспроизводиться.
5. Угол обзора камеры можно регулировать во время просмотра видео на смартфоне.

Рекомендуемый производитель адаптеров

Производитель	Модель
NETIS	WF2123 n300
EDIMAX	EW-7811Un
IP Time	N100mini
TP-LINK	TL-WN823N V1
ASUS	USB-N13
NETGEAR	WNA3100M

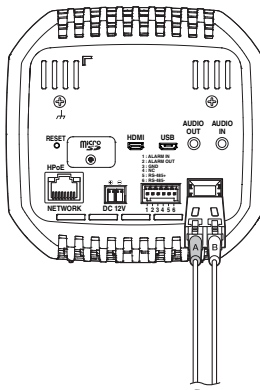
Подключение SFP-модуля

1. Вставьте SFP-модуль.



2. Присоедините оптический кабель (AB) типа LC к SFP.
3. Присоедините другой конец оптического кабеля (BA) к волоконно-оптическому преобразователю, который составляет пару с SFP-модулем.

- SFP-модули и волоконно-оптические преобразователи продаются отдельно.
 - Рекомендуются SFP-модули и волоконно-оптические преобразователи следующих изготовителей:
 - Comnet, IFS, Skylane, AVAGO, CISCO
 - Присоедините SFP-модуль и волоконно-оптический преобразователь посредством кросс-соединения (AB/BA).
- !
- Соединение SFP-модуля должно быть выполнено после того, как подсоединенная камера отключена.
 - Не устанавливайте и не снимайте SFP-модуль, пока камера включена.
 - Перекручивание оптического кабеля может вызвать нарушение соединения для связи.
 - Не смотрите прямо на оптический кабель. Это может вызвать повреждение глаз.



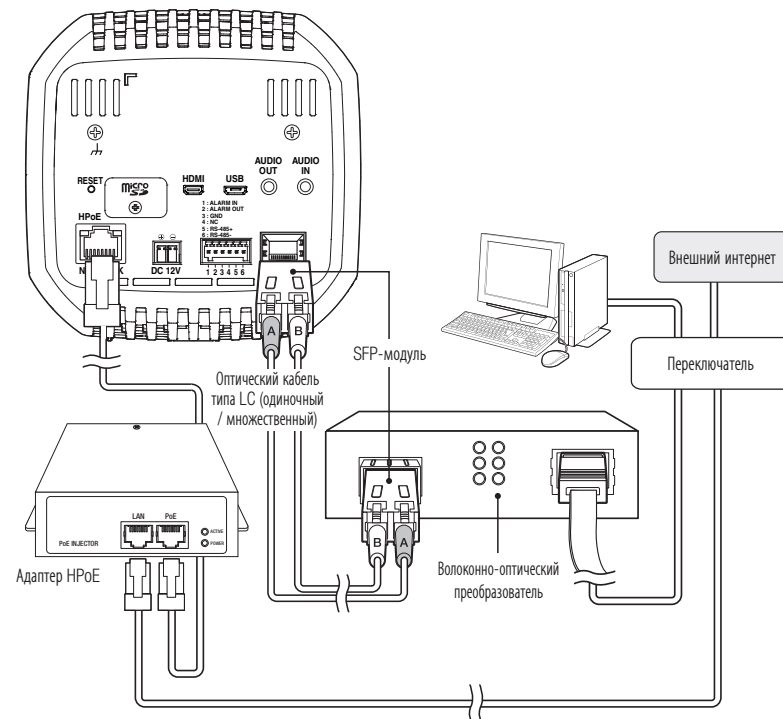
Подключение к сети Ethernet

Подключитесь к своей местной сети или к интернету посредством подсоединения Ethernet-кабеля или оптического соединения SFP.

Ethernet-соединение данного изделия поддерживает резервную линию связи между RJ-45 и SFP, при этом SFP имеет приоритет.

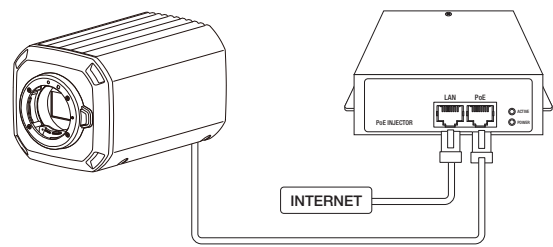
Пример поведения системы:

- Если SFP-порт подсоединяется во время использования RJ-45, SFP активируется для Ethernet-соединения, тогда как RJ-45 деактивируется.
- Если SFP-соединение неожиданно прерывается во время использования SFP, соединение RJ-45 автоматически активируется.



Питание и сеть

Подключите устройство HPoE к разъему HPoE камеры.



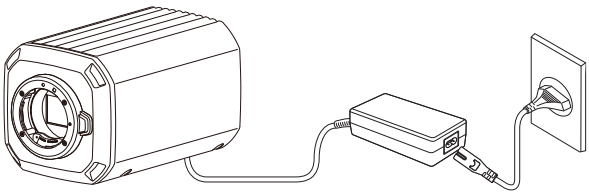
- Подключите маршрутизатор с поддержкой HPoE.
- Используйте устройство HPoE, соответствующее стандарту IEEE802.3bt (ПИТАЮЩИЕ УСТРОЙСТВА КЛАССА 3 или 4).
- Если вы подключаетесь при помощи маршрутизатора с поддержкой HPoE, вам не нужен отдельный кабель питания для его включения.

Спецификация сетевого кабеля

Пункт	Содержание	Примечание
Разъем	RJ45 (10/100/1000BASE-T)	
Ethernet	10/100/1000BASE-T	Для использования 1000BASE-T с гига-концентратором требуется кабель SSTP категории 7 или выше.
Кабель	Кабель SSTP категории 7	
Макс. расстояние	100 м	Сопротивление по постоянному току ≤ 0,188 Ом/м
HPoE	HPoE	

Источник питания

Подключите все провода кабеля питания (+, -) к соответствующему порту камеры с помощью отвертки.



- Если источники питания PoE и постоянного тока (12 В) включены одновременно, питание устройства будет осуществляться от каждого из них.
- Рекомендуется использовать для всего оборудования один источник для питания: либо PoE, либо 12 В постоянного тока.
- Рекомендуется адаптер с напряжением 12 В постоянного тока (3 А).
- Для питания блока рекомендуется использовать HPoE инжекторы.
- Подключая кабель питания, будьте очень внимательны, чтобы не перепутать полярность.
- Если необходимо подключить внешнее устройство, перед началом работы его необходимо выключить.
- Устройство должно быть подключено с помощью экранированного сетевого кабеля (STP) с надлежащим заземлением.

Спецификация на силовой кабель для каждой модели

В случае входа : 12 В постоянного тока:

Тип проводов (AWG)	#14	#16
Длина кабеля (макс.)	24 м	15 м

Стандарт Ethernet для оптической связи

Пункт	Содержание
Ethernet: Оптическая связь	SFP (тип LC)
Оптическая связь: Физический уровень Ethernet	10/100/1000BASE-T
Оптическая связь: Скорость по умолчанию	100/1000 Мбит/с
Оптическая связь: Стандарт Ethernet	IEEE 802.3ab, IEEE 802.3z

Заземление устройства

Используя отвертку, подключите провод заземления к соответствующей клемме, которая расположена над клеммой входа питания.

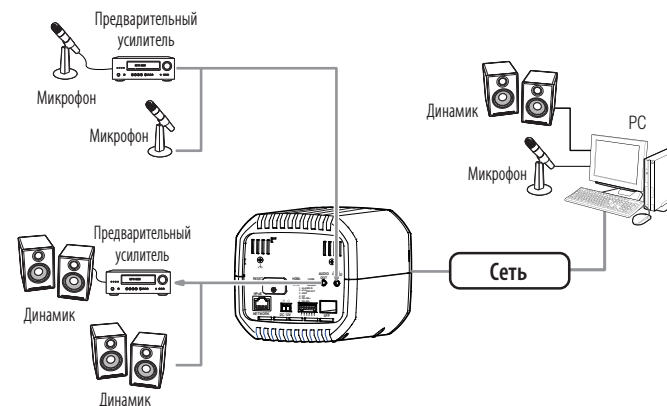


- Заземление защищает устройство от перегрузок электропитания и ударов молний.
- Перед подключением заземления обязательно выключите питание устройства.

Рекомендуемый заземляющий кабель

- Длина : Не более 3 м
- Толщина : Категория 18 AWG или больше
Например) UL1007 AWG 18/16, UL1015 AWG18/16/14/12, UL2468 AWG18/16/14

Подсоединение звукового ввода/вывода



1. Подключите микрофон к порту AUDIO IN камеры или соедините порты AUDIO IN и LINE OUT усилителя, к которому подсоединен микрофон.
2. Подключите динамик к порту AUDIO OUT камеры или соедините порты AUDIO OUT и LINE OUT усилителя, к которому подсоединен динамик.
3. Проверьте характеристики для аудиовхода.

• Аудиокодек

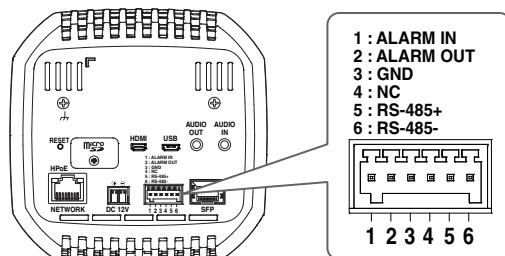
- Аудио вход : G.711 PCM (скорость передачи: 64кбит/с / частота дискретизации: 8кГц), G.726 АДИКДМ (скорость передачи: 16кбит/с , 24кбит/с , 32кбит/с , 40кбит/с / частота дискретизации: 8кГц), AAC (скорость передачи: 48кбит/с / частота дискретизации: 16кГц)
- Аудио выход : G.711 PCM (скорость передачи: 64кбит/с / частота дискретизации: 8кГц)

• Дуплексное аудио

- Звуковой вход : Моносигнальный линейный вход (макс. 2,4 В пикового напряжения)
- Звуковой выход : Моносигнальный линейный выход (макс. 2,4 В пикового напряжения)
- Сопротивление выходного канала Line out : 600 Ом

Подключение к блоку портов ввода-вывода

Подключите сигнальный кабель ввода-вывода тревог к соответствующему порту блока, расположенного сзади.



- **ALARM IN** : Используется для подключения сенсора входного сигнала тревоги или наружного сенсора день/ночь.
- **ALARM OUT** : Используется для передачи выходных сигналы тревоги.
- **GND** : Используется для грунтового заземления.
- **RS-485+** : Порт связи для ресивера RS-485 (+).
- **RS-485-** : Порт связи для ресивера RS-485 (-).

Подключение внешнего устройства RS-485

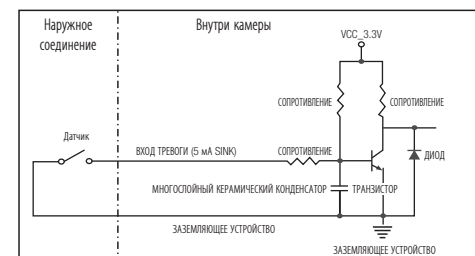
Подключите камеру к внешнему устройству с помощью портов **[RS-485 +, -]**. Можно управлять операциями панорамирования/наклона через соединение по RS-485.

- Для связи через RS-485 рекомендуется подключить разъем **GND**. При обнаружении ошибки связи подключите контакт **GND** к соответствующему разъему **GND** между камерой и внешним устройством.

Подключение к внешнему датчику

Подсоедините один провод двухпроводного кабеля датчика к порту **[ALARM IN]**, а другой провод - к порту **[GND]**.

Монтажная схема входа тревоги

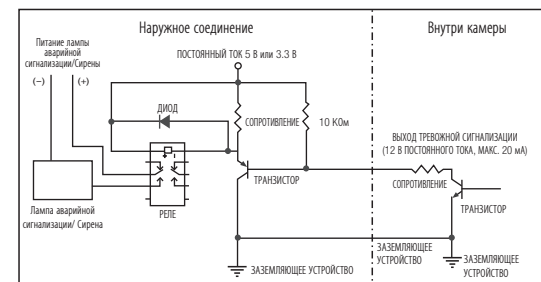


Подключение выхода тревоги

Если устройства (например, проблесковый световой маяк или сирена), превышающие допустимый уровень напряжение и тока, указанный в технических спецификациях, подсоединяются при помощи метода открытого коллектора, это может привести к сбою.

При подключении устройств, напряжение и текущие технические характеристики которых выше указанных в спецификации, смотрите схему подключения выхода тревоги, представленную ниже.

Монтажная диаграмма выхода тревоги

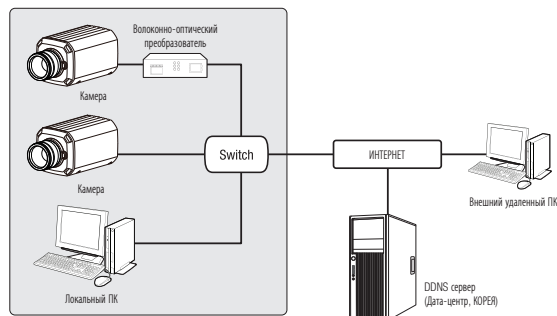


Можно выставить сетевые настройки согласно сетевой конфигурации.

ПОДКЛЮЧЕНИЕ КАМЕРЫ НАПРЯМУЮ К ЛОКАЛЬНОЙ СЕТИ

Подключение к камере через локальный ПК в локальной сети

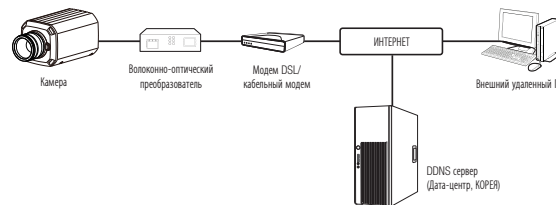
1. Запустите Интернет-браузер на локальном ПК.
2. Введите адрес IP-роутера в адресной строке браузера.



<Локальная сеть>

- Удаленный ПК во внешней сети или в Интернете не может подключиться к камере, установленной в интранет, если не задана правильная переадресация портов или установлен фаервол. В этом случае обратитесь к системному администратору для устранения проблемы.
- Согласно заводским настройкам по умолчанию, IP-адрес назначается сервером DHCP автоматически. Если сервер DHCP отсутствует, будет задан следующий IP-адрес: 192.168.1.100. Чтобы изменить IP-адрес, нужно использовать Device Manager. Для получения дополнительной информации об использовании Device Manager см. раздел «Использование Device Manager». (Стр. 17)

ПРЯМОЕ ПОДКЛЮЧЕНИЕ КАМЕРЫ К МОДЕМУ DSL/КАБЕЛЬНОМУ МОДЕМУ С ПОДДЕРЖКОЙ ПРОТОКОЛА DHCP



1. Подсоедините напрямую ПК пользователя с сетевой камерой.
2. Запустите Device Manager и измените IP-адрес камеры, чтобы можно было для подключения к Интернету использовать веб-браузер вашего компьютера.
3. Установите подключение к интерактивной программе просмотра в веб-браузере.
4. Перейдите на страницу [Настройка].
5. Перейдите на страницу [Сеть] - [DDNS] и настройте параметры DDNS.
6. Перейдите по меню [Basic] - [IP & Порт] и задайте тип IP для [DHCP].
7. Подсоедините камеру, отключенную от ПК, непосредственно к модему.
8. Перезапустите камеру.

- За информацией об установке DDNS обратитесь к онлайнной справке программы Web Viewer.
- За информацией о задании формата IP-адреса обратитесь к онлайнной справке программы Web Viewer.

ИСПОЛЬЗОВАНИЕ DEVICE MANAGER



- Программы Device Manager можно загрузить с веб-сайта Hanwha Vision через меню **<Служба поддержки>** – **<Online Tool>**. (<https://www.hanwhavision.com>)
- Дополнительные инструкции по Device Manager можно найти в меню **<Справка>** главной страницы.

АВТОМАТИЧЕСКИЙ ПОИСК КАМЕРЫ

Если камера подключена к той же сети, что и ПК, на котором установлен Device Manager, можно найти такую сетевую камеру с помощью функции поиска.

1. Нажмите **<Search (Поиск)>** на главной странице Device Manager.
2. В открывшемся списке выберите нужную камеру.
 - Проверьте MAC-адрес на наклейке, прикрепленной к камере.

НАСТРОЙКА IP-АДРЕСА

Чтобы изменить сетевые настройки камеры, в поле **<Status (Состояние)>** должен отображаться значок **<Login OK (Вход ОК)>**. Чтобы войти в систему, на главной странице нажмите **<Authentication (Аутентификация)>**.

Настройка статического IP

Вручную введите IP-адрес и информацию о порте.

1. Выберите из списка камеру, у которой нужно изменить параметры IP.
2. Нажмите кнопку **<IP Assign (Назначить IP)>** на главной странице Device Manager.
3. Выберите **<Assign the following IP address (Назначить следующий IP-адрес)>**.
 - В данных параметров IP камеры будут отображаться введенные значения.
4. Заполните категории IP-адреса и порта.

В случае отсутствия Широкополосный маршрутизатор

Попросите сетевого администратора выдать вам значения **<IP Address (IP-адрес)>**, **<Subnet Mask (Маска подсети)>**, **<Gateway (Шлюз)>**.

- HTTP Port : Используется для получения доступа к камере через веб-обозреватель. Значение по умолчанию - 80.
- RTSP Port: Порт, который управляет потоковой передачей в реальном времени. По умолчанию установлено значение 554.

В случае использования Широкополосный маршрутизатор

- IP Address : введите адрес, который соответствует IP-диапазону, заданному Широкополосный маршрутизатор. пр) 192.168.1.2~254, 192.168.0.2~254, 192.168.XXX.2~254
- Subnet Mask : параметр **<Subnet Mask>** Широкополосный маршрутизатор соответствует параметру **<Subnet Mask>** камеры.
- Gateway : параметр **<Local IP Address>** Широкополосный маршрутизатор соответствует параметру **<Gateway>** камеры.



- Параметры могут различаться в зависимости от модели Широкополосный маршрутизатор. Для получения дополнительных сведений см. руководство пользователя соответствующего маршрутизатора.
- Дополнительную информацию о переназначении портов на широкополосном маршрутизаторе см. в разделе **"Настройка Переназначения Диапазона Портов (Распределение Портов)"**. (Стр. 19)

Если к Широкополосный маршрутизатор подключено несколько камер

Настройте параметры, связанные с IP-адресом и портами, в соответствии друг с другом.

пр)

Категория	Камера №1	Камера №2
Настройки, связанные с IP	IP Address Subnet Mask Gateway 192.168.1.100 255.255.255.0 192.168.1.1	192.168.1.101 255.255.255.0 192.168.1.1
Настройки, связанные с портами	Порт HTTP Порт RTSP 8080 554	8081 555



- Если для параметра **<HTTP Port>** выбрано значение свыше 80, необходимо указать номер **<Port>** в адресной строке веб-обозревателя, прежде чем получить доступ к камере.
пр) http://IP-адрес : Порт HTTP
http://192.168.1.100:8080

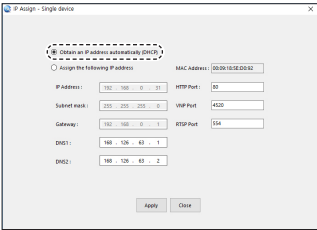
5. Нажмите кнопку **[Применить]**.
6. Если появится сообщение об успешной настройке, нажмите **[OK]**.

Настройка динамического IP-адреса

Получите IP-адрес от DHCP

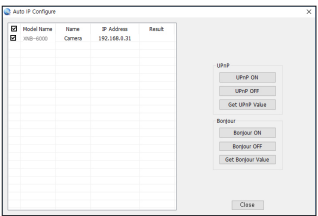
- Примеры динамического IP-окружения
 - Сервер DHCP назначает IP-адрес Широкополосный маршрутизатор с подключенными камерами.
 - Прямое подключение камеры к модему с помощью протоколов DHCP
 - Внутренний сервер DHCP назначает IP-адреса по локальной сети.

1. Выберите из списка камеру, у которой нужно изменить параметры IP.
2. Нажмите кнопку <IP Assign (Назначить IP)> на главной странице Device Manager.
3. Выберите <Obtain an IP address automatically (DHCP) (Получить IP-адрес автоматически (DHCP))>.
4. Нажмите кнопку [Apply (Применить)].
5. Если появится сообщение об успешной настройке, нажмите [OK].



АВТОМАТИЧЕСКАЯ НАСТРОЙКА IP

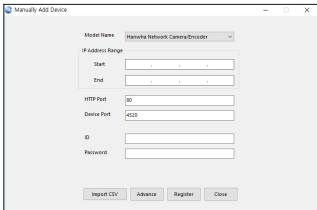
1. Выберите из списка камеру, для которой необходимо автоматически настроить параметры IP.
2. На главной странице Device Manager нажмите < + >.
 - Появится меню настроек оборудования.
3. Выберите в меню <Auto IP Configure (Автоматическая настройка IP)>.
4. Нажмите кнопку [Close (Закрыть)].



РЕГИСТРАЦИЯ КАМЕРЫ ВРУЧНУЮ

Если не удастся найти камеру с помощью функции поиска (если камера подключена к внешней сети), ее можно зарегистрировать удаленно, введя ее параметры IP вручную.

1. На главной странице Device Manager нажмите <Add Devices (Добавить устройства)> – <Manually Add Device (Добавить устройство вручную)>.
2. Введите нужный диапазон IP-адресов.
3. Выберите <Model Name (имя модели)> камеры, которую нужно зарегистрировать, и введите данные о порте HTTP, идентификатор и пароль.
4. Нажмите кнопку [Register (Зарегистрировать)].
5. Проверьте, зарегистрировалась ли камера.
 - Проверьте MAC-адрес на наклейке, прикрепленной к камере.

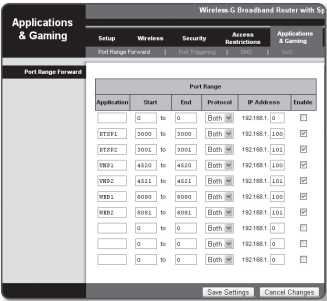


НАСТРОЙКА ПЕРЕАДРЕСАЦИИ ДИАПАЗОНА ПОРТОВ (РАСПРЕДЕЛЕНИЕ ПОРТОВ)

После установки Широкополосный маршрутизатор с подключенными камерами необходимо настроить для него переадресацию диапазона портов, чтобы с удаленного компьютера можно было получить доступ к подключенным камерам.

Переадресации диапазона портов вручную

1. В меню настроек Широкополосный маршрутизатор выберите **<Applications & Gaming>** - **<Port Range Forward>**.
Сведения о настройке переадресации диапазона портов для Широкополосный маршрутизатор стороннего производителя см. в его руководстве пользователя.
2. Выберите **<TCP>** и **<UDP Port>** для каждой камеры, подключенной к Широкополосный маршрутизатор. Номер каждого из портов, конфигурируемых в IP-маршрутизаторе, следует устанавливать в соответствии с номером, назначенным в пункте меню **<Настройка>** - **<Basic>** - **<IP & Порт>** в Web viewer камеры.
3. Затем нажмите кнопку **[Save Settings]**.
Заданные настройки будут сохранены.

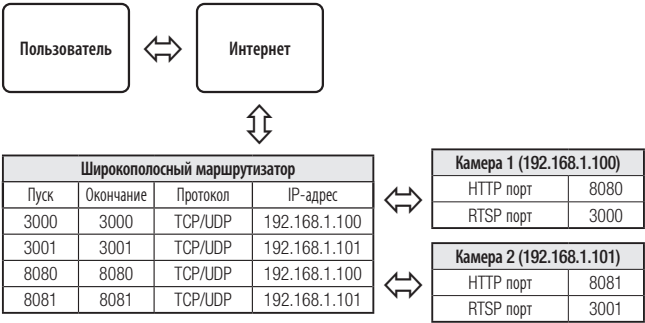


- Настройка переадресации портов является примером настройки IP-маршрутизатора CISCO.
- Параметры могут различаться в зависимости от модели Широкополосный маршрутизатор. Для получения дополнительных сведений см. руководство пользователя соответствующего маршрутизатора.

Настройка переадресации диапазона портов для нескольких сетевых камер

- Правило переадресации порта для Широкополосный маршрутизатор можно задать с веб-страницы его настроек.
- С помощью экрана настройки камеры можно изменить все порты.

Когда камера 1 и камера 2 подключены к маршрутизатору:



- Переадресация портов выполняется без дополнительной настройки роутера, если роутер поддерживает функцию UPnP (включи и работай).
После соединения с сетевой камерой установите из меню **<Быстрое соединение>** флажок **<DDNS>** в пункте **"Настройки -> Сеть -> DDNS"**.

ПОДКЛЮЧЕНИЕ К КАМЕРЕ С ЛОКАЛЬНОГО КОМПЬЮТЕРА ОБЩЕГО ДОСТУПА

1. Запустите Device Manager.
Она выполнит поиск подключенных камер и составит список найденных.
2. Дважды щелкните нужную камеру, чтобы получить к ней доступ.
Запустится веб-обозреватель и подключится к выбранной камере.



- Получить доступ к найденной камере можно и другим способом: просто введите IP-адрес камеры в адресную строку веб-обозревателя.

ПОДКЛЮЧЕНИЕ К КАМЕРЕ С УДАЛЕННОГО КОМПЬЮТЕРА ЧЕРЕЗ ИНТЕРНЕТ

На удаленном компьютере, который не входит в сетевой кластер широкополосного маршрутизатора, пользователи не могут получить доступ к камерам в сети широкополосного маршрутизатора, используя URL-адрес DDNS конкретной камеры.

1. Прежде чем получить доступ к камере в сети Широкополосный маршрутизатор, необходимо настроить переадресацию диапазона портов для Широкополосный маршрутизатор.
2. На удаленном компьютере запустите веб-обозреватель и введите DDNS URL-адрес камеры или IP-адрес Широкополосный маршрутизатор в адресную строку.
пр) <http://ddns.hanwha-security.com/ID>

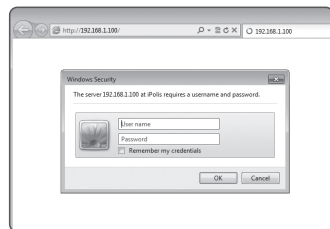


- Чтобы использовать DDNS, зарегистрируйтесь на домашней странице DDNS (<http://ddns.hanwha-security.com>) и зарегистрируйте продукт через меню **[Мой DDNS]> [Зарегистрировать продукт]**.

ПОДКЛЮЧЕНИЕ К КАМЕРЕ

Обычный порядок действий

1. Запустите веб-обозреватель.
2. Введите IP-адрес камеры в адресную строку.
пр) • IP-адрес (IPv4) : 192.168.1.100
→ http://192.168.1.100
- появится диалоговое окно входа.
• IP-адрес (IPv6) : 2001:230:abcd:ffff:0000:0000:ffff:1111
→ http://[2001:230:abcd:ffff:0000:0000:ffff:1111] - появится диалоговое окно входа.



Номер порта HTTP отличен от 80

1. Запустите веб-обозреватель.
2. Введите IP-адрес и номер порта HTTP камеры в адресную строку.
пр) IP-адрес: 192.168.1.100: номер порта HTTP(8080)
→ http://192.168.1.100:8080 - появится диалоговое окно входа.

Использование URL-адреса

1. Запустите веб-обозреватель.
2. Введите DDNS URL-адрес камеры в адресную строку.
пр) URL-адрес: http://ddns.hanwha-security.com/ID
- появится диалоговое окно входа.

! ■ Сетевое подключение выключено только в среде LAN.

Подключение через UPnP

1. Запустите систему клиента или операционную систему в подтверждение UPnP протокола.
2. Кликните имя камеры для поиска.
В операционной системе Windows кликните на имя камеры для поиска в меню сети.
- Отобразится окно входа.

Соединение через службу Bonjour

1. Запустите систему клиента или операционную систему в подтверждение Bonjour протокола.
2. Кликните имя камеры для поиска.
В операционной системе Mac кликните имя камеры для поиска во вкладке Bonjour в браузере Safari.
- Отобразится окно входа.

Просмотр DDNS-адреса

Если камера подключена напрямую к кабельному модему DHCP, модему DSL, то IP-адрес вашей сети будет изменяться при каждом подключении к серверу поставщика услуг Интернета. В этом случае вам не будет сообщаться об изменении IP-адреса, выполненном DDNS.

Если вы зарегистрируете устройство с динамическим IP-адресом на сервере DDNS, то во время доступа к этому устройству вы всегда можете проверить, как изменился его IP-адрес. Чтобы зарегистрировать устройство на сервере <DDNS>, посетите веб-сайт <http://ddns.hanwha-security.com>. Сначала зарегистрируйте камеру, а затем задайте <Сеть> - <DDNS> для <DDNS> в программе Web Viewer, а также укажите <Код продукта>, который использовался для регистрации DDNS.

УСТАНОВКА ПАРОЛЯ

Когда доступ к продукту выполняется первый раз, необходимо зарегистрировать пароль входа в систему.



- Для нового пароля от 8 до 9 символов, необходимо использовать не менее 3 символов из числа следующих: строчные/прописные буквы, цифры и специальные символы. Для пароля от 10 до 15 символов необходимо использовать не менее 2 типов указанных символов.
 - Допускаются следующие специальные символы : ~!@#\$\$%^&*()_ - +={[]\;:?,/
- Для лучшей защиты пароля не рекомендуется повторять одинаковые символы либо символы, последовательно расположенные на клавиатуре.
- При утрате пароля можно нажать кнопку [RESET] для инициализации продукта. Не теряйте пароль, сохраните его в записной книжке или запомните.

Administrator password change

New password

Confirm new password

. If the password is 8 to 9 letters long, then it should be a combination of at least three types: upper/lower case alphabets, numbers and special characters.
. If the password is 10 to 15 letters long, then it should be a combination of at least two types: upper/lower case alphabets, numbers and special characters.
. User name should be different from password.
. The following special characters are available for use: ~!@#\$\$%^&*()_ - +={[]\;:?,/.
. Don't use 4 or more characters consecutive together. (examples: 1234, abcd)
. Don't use 4 or more characters repeated. (examples: 111, 1111, aaaa)

ВХОД

При каждом доступе к камере будет появляться окно входа.

Укажите идентификатор пользователя и пароль для доступа к камере.

1. Введите "admin" в поле ввода <User Name>.
Идентификатор администратора "admin" постоянный и не подлежит изменению.
2. Введите пароль в поле ввода <Password>.
3. Нажмите кнопку [OK].
После входа в систему отобразится экран интерактивной программы просмотра.



- При доступе к камере через модуль Web viewer уделите внимание безопасности и проверьте, зашифрованы ли данные, содержащие изображение.



- Если установить флажок "Remember my credentials" во время ввода данных, то в следующий раз и далее вход в систему будет выполняться автоматически без запроса данных.
- Лучшее качество видео обеспечивается при размере экрана 100%. При уменьшении экрана изображение может быть обрезано по краям.

Windows Security

The server 192.168.1.100 at 10:15 requires a username and password.

User name

Password

☐ Remember my credentials

OK Cancel

НАСТРОЙКА WEB VIEWER

1. Щелкните по значку [Настройка (⚙)].
2. Откроется окно настроек.
3. Можно задать по локальной сети базовую информацию о камере, а также настройки видео, аудио, локальной сети, событий, анализа и системы.
4. Выберите <Справка (🔍)> для просмотра подробного описания каждой функции.



- Из-за проблем с производительностью компьютера видео с высоким разрешением (от 4К) записывается в бесплатный профиль плагина в web viewer.
Для оптимального просмотра видео в реальном времени используйте высокопроизводительные сервисы для видеомониторинга, например SSM.

ПОИСК И УСТРАНЕНИЕ НЕПОЛАДОК

ПРОБЛЕМА	РЕШЕНИЕ
Если пользователь Windows 10 получает доступ к Web viewer через Chrome или Firefox, громкость микрофона периодически изменяется.	Это происходит, когда для микрофона установлен драйвер Realtek. Установите в качестве драйвера микрофона драйвер Windows по умолчанию для звукового устройства с поддержкой High Definition Audio, либо драйвер стороннего поставщика.
Если доступ производится через подключаемый программный модуль Free webviewer на Safari через HTTPS, видео не отображается.	- При первоначальном доступе к https во всплывающем окне с предложением аутентификации выберите "Просмотр сертификата подлинности" и установите флажок "Всегда доверять при соединении по IP, назначенному программе веб-просмотра". - Если модуль веб-просмотра по-прежнему не отображает видео после выбора "Далее" в окне сообщения внизу, нажмите командную кнопку + Q, чтобы выйти из браузера Safari, вновь войдите в систему и следуйте процедуре, приведенной выше.
Нет доступа к камере через веб-браузер.	- Проверьте на правильность сетевые настройки камеры. - Убедитесь в правильности подключения всех сетевых кабелей. - Убедитесь в том, что камера получает динамический IP-адрес при использовании DHCP-технологии. - Если камера подключена к Широкополосный маршрутизатор, убедитесь в том, что переадресация портов настроена правильно.
Происходит разрыв соединения по время мониторинга видео в экране просмотра.	- При любом изменении настроек камеры или сети происходит разрыв соединения с наблюдательными терминалами. - Проверьте все сетевые соединения.
Подключенная к сети камера не обнаружена в программе Device Manager.	Отключите фаервол на своем ПК и заново запустите поиск камеру.
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Нет картинки.	Если задан метод передачи на группу адресов, убедитесь, что в локальной сети, к которой подключена камера, есть роутер, поддерживающий технологию multicast.
Голос не записывается, даже если заданы настройки входа аудио.	Необходимо установить флажок <Аудио вход> в меню <Basic> - <Профиль видео>.

ПРОБЛЕМА	РЕШЕНИЕ
<Детектор движения> в меню <Аналитика> установлено в <Активировать>, но уведомления по электронной почте не приходят, даже когда произошло событие аналитики.	Проверьте настройки в следующей последовательности: А. Проверьте настройки параметра <Дата и время>. В. Для параметра <Детектор движения> необходимо задать значение <Активировать>. С. Проверьте, выбран ли в меню <Настройка событий> параметр <Настройка событий>.
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Не удается записать данные на карту памяти Micro SD.	Проверьте, исправна ли карта памяти.
Карта памяти Micro SD установлена, однако камера работает неверно.	- Проверьте, в правильном ли направлении вставлена карта памяти. Возможность использования карт памяти, отформатированных на других устройствах, не гарантируется. - Снова отформатируйте карту памяти в меню <Настройка> → <Событие> → <Накопитель>.
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The IJG distribution formerly included code to read and write GIF files. To avoid entanglement with the Unisys LZW patent, GIF reading support has been removed altogether, and the GIF writer has been simplified to produce "uncompressed GIFs". This technique does not use the LZW algorithm; the resulting GIF files are larger than usual, but are readable by all standard GIF decoders.

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on January 23, 2004
revised on June 17, 2004
revised on December 21, 2006
revised on March 24, 2009

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Jean-loup Gailly Mark Adler

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The data format used by the zlib library is described by RFCs (Request for Comments) 1950 to 1952 in the files <http://www.ietf.org/rfc/rfc1950.txt> (zlib format), [rfc1951.txt](http://www.ietf.org/rfc/rfc1951.txt) (deflate format) and [rfc1952.txt](http://www.ietf.org/rfc/rfc1952.txt) (gzip format).

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Правильная утилизация данного устройства (Утилизация электрического и электронного оборудования)

(Действует во всех странах Европейского Союза и других странах Европы, принявших систему разделения отходов)

Подобная маркировка на изделии, принадлежностях или в руководстве к нему предупреждает, что по истечении срока службы изделие или электронные принадлежности для него (например, зарядное устройство, наушники, кабель USB) не следует выбрасывать вместе с другим бытовым мусором. Чтобы избежать вредного воздействия на окружающую среду или на здоровье человека от неконтролируемой утилизации отходов, следует отделять маркированные подобным образом изделия от другого мусора для соответствующей переработки и повторного использования в качестве сырья.

За подробной информацией о месте и способе экологически безопасной утилизации бытовым потребителям следует обращаться к продавцу данного изделия или в органы местного самоуправления. Промышленным потребителям необходимо обратиться к поставщику, чтобы уточнить сроки и условия договора купли-продажи. Подобные изделия и электронные принадлежности не следует утилизировать вместе с другими производственными отходами.



Правила утилизации батарей данного изделия

(Действительны в Европейском Союзе и иных европейских странах с системами раздельной утилизации.)

Данная маркировка на батарее или упаковке указывает на запрет утилизации изделия с иными бытовыми отходами по окончании срока службы. При наличии маркировки, химические символы Hg, Cd или Pb указывают на содержание в батарее ртути, кадмия или свинца выше контрольных уровней, указанных в директиве ЕС 2006/66. При неправильной утилизации батарей, данные вещества могут нанести вред здоровью человека или окружающей среде. Для защиты природных ресурсов и поддержки повторного использования материалов рекомендуется хранить батареи отдельно от других типов отходов и утилизировать их через местную систему бесплатного возврата батарей. Замена аккумуляторов, встроенных в данное изделие, пользователем не предусмотрена. Информация по замене аккумуляторов может быть получена у обслуживающей компании.



Подлежит использованию по назначению
в нормальных условиях
Срок службы : 7 лет.